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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/701,276

11/04/2003

Stacy G. Fishkin

67,108-019; Fishkin 2-2

5003

26096 7590 07/02/2007
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EXAMINER

MASKULINSKI, MICHAEL C

ART UNIT

PAPER NUMBER

2113

MAIL DATE

DELIVERY MODE

07/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/701,276

Applicant(s)

FISHKIN ET AL.

Examiner

Michael C. Maskulinski

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8, 11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7, 9, 10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Non-Final Office Action

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6, 8, 11, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Box et al., U.S. Patent 5,787,271.

Referring to claim 1:

- a. In column 6, lines 36-37, Box et al. disclose that the input files comprise a node data file, a span file, and a demand data file (sampling a combinatorial space formed by the plurality of devices to obtain a sample configuration).
- b. In Figure 5A, Box et al. disclose generating an optimization metric based on at least one operating characteristic of said plurality of devices in the sample configuration (Pass 1).
- c. In Figure 5A, Box et al. disclose comparing the optimization metric with a stored optimization metric corresponding to a previous sample configuration (Pass 2).
- d. In Figure 5B, Box et al. disclose selecting one of the sample configuration and the previous sample configuration as the optimum configuration based on the comparing step.

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Referring to claim 2, in column 6, lines 36-37, Box et al. disclose that the input files comprise a node data file, a span file, and a demand data file (wherein the plurality of devices are a plurality of elements each comprising at least one unit).

Referring to claim 3, in column 4, lines 50-51, Box et al. disclose creating a spares network in addition to the existing network (said at least one unit is selected from a group consisting of a primary unit and a redundant unit).

Referring to claim 6, in column 4, lines 26-27, Box et al. disclose creating an efficient and economical spares network (where the optimization metric calculated by the generation step is a cost optimization metric based on a total cost of the plurality of devices).

Referring to claim 8, in column 4, lines 50-51, Box et al. disclose providing a design for a spares network according to a specified level of restoration (wherein the optimization metric calculated by the generating step is a reliability optimization metric based on a total reliability of the plurality of devices).

Referring to claim 11, in column 4, lines 26-27, Box et al. disclose creating an efficient and economical spares network, and in column 4, lines 50-51, Box et al. disclose providing a design for a spares network according to a specified level of restoration (wherein the optimization metric calculated by the generating step is a total optimization metric based on a total cost and a total reliability of the plurality of devices).

Referring to claim 13, in column 14, lines 50-56, Box et al. disclose wherein the optimization metric is calculated based on at least one weighted constraint.

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Referring to claim 14, in Figure 5A, Box et al. teach storing the optimization metric and the sample configuration if the optimization metric is less than the stored optimization metric.

Referring to claim 15, in Figures 5A and 5B, Box et al. teach repeating the sampling, generating, and comparing steps for a maximum number of iterations, and conducting the selecting step after the maximum number of iterations.

Referring to claim 16, in Figures 5A and 5B, Box et al. teach repeating the sampling, generating, and comparing steps until the optimization metric converges, and conducting the selecting step after the optimization metric converges.

Allowable Subject Matter

3. Claims 17-20 are allowed.
4. Claims 4, 5, 7, 9, 10, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter.

Referring to claim 17, the prior art does not teach or reasonably suggest generating a total optimization metric based on a total cost and a total reliability of the plurality of devices in the sample configuration, wherein the total optimization metric is calculated based on a relative weighting of a cost constraint and a reliability constraint.

Conclusion

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art is related to optimizing the configuration of a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Maskulinski whose telephone number is 571-272-3649. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael C Maskulinski
Examiner
Art Unit 2113